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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,816	12/26/2001	Masateru Minemoto	056314/0004	6945

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EXAMINER

ROCHE, TRENTON J

ART UNIT	PAPER NUMBER
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2193

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,816

Applicant(s)

MINEMOTO, MASATERU

Examiner

Trent J. Roche

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 4, 6, 7, 9-16, 18, 19 and 21-23 is/are rejected.
7) ☒ Claim(s) 5, 8, 17 and 20 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 10 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02102005.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to communications filed 10 February 2005.
2. Per applicant's request, amended claims 4-11 have been entered. Claims 1-3 have been canceled. Newly added claims 12-23 have been entered. Claims 4-23 are now pending.
3. Claims 4-23 have been examined.

Drawings

4. The drawings were received on 10 February 2005. These drawings are acceptable.

Response to Arguments

5. Applicant's arguments filed 10 February 2005 have been fully considered but they are not persuasive.

The Examiner objected to claims 4, 5 and 8 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the rejected base claim and intervening claims. The Applicant states that claims 1-3 were canceled, and claim 4 was rewritten in appropriate independent form. However, it is noted that the rewriting of claim 4 appears to significantly change the scope of the claim, as prior to the amendment claim 4 stated "said coordinate information comprises a combination of a time axis, a data axis and a control axis, a combination of the time axis, the data axis, the control axis and a CPU axis, a combination of the time axis, the data axis, the control axis, the CPU axis and an event axis; a combination of the time axis, the data axis, the control axis, the CPU axis, the event axis and a condition axis; and a combination of the time axis, the data axis, the control axis, the CPU axis, the event axis, the

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condition axis and a PC axis.” After the amendment of 10 February 2005, the claim language was changed to read, “said coordinate information including a combination of at least one of...” The amendment is considered to change the scope of the claim considerably, and the content of newly amended claim 4 is not considered to be allowable by the Examiner. The rejection of claims 4, 6, 7, 9-16, 18, 19 and 21-23 as recited below are considered proper.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 6, 7, 9-16, 18, 19 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,628,312 to Rao et al, hereafter referred to as Rao.

Per claim 4:

Rao discloses:

- a multi-dimensional programming device comprising an object file unit storing object information for creating a multi-dimensional, horizontally written flowchart (“the visualization tool stores and retrieves data for visualization using an abstract data model, such as a multidimensional data cube” in col. 4 lines 20-22)
- an object editing unit for using the object information read from said object file to edit the multi-dimensional flowchart (“detecting a user’s interaction with the data represented in the

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- visual model; initiating an operation on the data set based on the detected user interaction with the data” in col. 2 lines 48-50)
- a drafting unit for drafting the edited multi-dimensional flowchart (“updating the visual model to reflect the operation initiated by the user” in col. 2 lines 51-52)
 - a saving unit for saving the edited multi-dimensional flowchart into said object file unit (“The user invokes operations on the abstract data model by operating on the visual model” in col. 8 lines 24-25. The operations on the visual model are reflected by saving the changes in the abstract data model.)
 - object information including program flowchart symbol information, coordinate information, and cell information, and character information as claimed (Note Figure 12 and the corresponding sections of the disclosure)

substantially as claimed. Rao discloses making the programming space displayable on the screen by means of three-dimensional basic coordinates, and performing the editing of said screen according to an input command signal as claimed (“the dimension hierarchy for a three-dimensional data set...” in col. 7 lines 31-32). Rao does not explicitly disclose coordinate information including a time axis, a data axis, and a control axis. However, the concepts of modeling as disclosed by Rao are intended to indicate a way to display multidimensional data, and that the data dimensions disclosed by Rao are but one instance of the data that may be represented. As time, data and control are measurements of data which are widely well known to one of ordinary skill, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the multidimensional visualization system of Rao to include dimensions for tracking time, data and control so that one may visualize those aspects of the system according to the model disclosed by Rao.

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Per claim 6:

The rejection of claim 1 is incorporated, and further, Rao discloses making the programming space displayable on the screen by means of three-dimensional basic coordinates, and performing the editing of said screen according to an input command signal as claimed (“the dimension hierarchy for a three-dimensional data set...” in col. 7 lines 31-32). Rao does not explicitly disclose that the horizontal axis is the time axis and the vertical axis being at least the data axis and the control axis. However, the concepts of modeling as disclosed by Rao are intended to indicate a way to display multidimensional data, and that the data dimensions disclosed by Rao are but one instance of the data that may be represented. As time, data and control are measurements of data which are widely well known to one of ordinary skill, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the multidimensional visualization system of Rao to include dimensions for tracking time, data and control so that one may visualize those aspects of the system according to the model disclosed by Rao.

Per claim 7:

The rejection of claim 6 is incorporated, and further, Rao discloses switching a dimension in order to take a cross section as claimed (Note section 1. The Select-Slice Operation and section 2. The Promote/Demote operations in col. 9 line 31 to col. 10 line 47.)

Per claim 9:

The rejection of claim 3 is incorporated, and further, Rao discloses a function for shrinking or restoring the coordination information by units of rows and columns as claimed (Note section 1.

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The Select-Slice Operation and section 2. The Promote/Demote operations in col. 9 line 31 to col. 10 line 47.)

Per claim 10:

The rejection of claim 3 is incorporated, and further, Rao discloses a function for burying a given coordinate axis into another coordinate axis, such as by decreasing the number of dimensions centered around the time axis which is common throughout the programming space as claimed (Note section 1. The Select-Slice Operation and section 2. The Promote/Demote operations in col. 9 line 31 to col. 10 line 47.)

Per claim 11:

The rejection of claim 1 is incorporated, and further, Rao discloses information associated with a horizontal slit having one line of cell objects, and information associated with a flat surface object corresponding to said horizontal slit as claimed (Note Figure 7 and the corresponding sections of the disclosure.)

Per claim 12:

The rejection of claim 4 is incorporated, and further, Rao discloses said multi-dimensional horizontally written flowchart being at least one of a two dimensional, three dimensional, and four dimensional flowchart as claimed (“two-dimensional visual model...” in col. 2 line 46)

Per claim 13:

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The rejection of claim 4 is incorporated, and further, Rao discloses a start terminator and an end terminator as claimed (Note Figure 12 and the corresponding sections of the disclosure)

Per claim 14:

Claim 14 is directed to a method claim corresponding to the device claim of claim 4, and is rejected for the reasons set forth in connection with claim 4.

Per claims 15 and 16:

The rejection of claim 14 is incorporated, and further, note the rejection regarding claims 12 and 13, respectively.

Per claim 18:

The rejection of claim 14 is incorporated, and further, note the rejection regarding claim 6.

Per claim 19:

The rejection of claim 18 is incorporated, and further, note the rejection regarding claim 7.

Per claims 21-23:

The rejection of claim 14 is incorporated, and further, note the rejection regarding claims 9-11, respectively.

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Allowable Subject Matter

8. Claims 5, 8, 17 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trent J. Roche whose telephone number is (571) 272-3733. The examiner can normally be reached on Monday - Friday, 9:00 am - 5:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Trent J Roche
Examiner
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TJR



TODD INGBERG
PRIMARY EXAMINER